Tracking and Quantifying Carcass Disposal

- ✓ Need method of identifying and quantifying amount of carcass brought to landfill
  - ❑ Maintain log book to record all personnel and vehicles that have had contact with infected premise, carcasses, and equipment
  - ❑ Consider placing information from log books in computerized format for future reference
- ✓ Procedure for monitoring leachate
  - ❑ Review existing landfill procedures regarding infectious waste--modify if necessary
  - ❑ Records of leachate generated from the animal carcasses should be maintained as specified
- ✓ Records
  - ❑ Daily record of weight of animal carcasses accepted at the landfill should be maintained and made available for review and inspection
  - ❑ The transportation record should contain the following information:
    - ➢ Location of the farm/origin of the carcasses
    - ➢ Location of landfill
    - ➢ Transportation vehicle number
    - ➢ Registration number, name, and addresses of the operator for all vehicles delivering carcasses to the landfill
    - ➢ Supervisor's name and signature
    - ➢ Cleaning and Disinfection checklist for the vehicle
    - ➢ Unique reference number of each load of animal carcasses
  - ❑ Records should be maintained and secure with the landfill operator and remain available for inspection

Communication

- ✓ Coordination among federal, state, local governments; private groups and industries; public sectors; and health officials is required.
- ✓ Contact the state veterinarian
- ✓ Contact the landfill prior to transport to arrange for disposal
  - ❑ Inform landfill about space, personnel, and safety requirements
  - ❑ During an outbreak, contact Waste Management, Inc. or Casella Waste Systems, Inc. for advice
  - ❑ Deal with landfill corporate offices in cases where landfills are willing to take AI-infected carcasses but corporate offices are not
- ✓ Communication at the landfill
  - ❑ Radio communication should be used to provide communication at the landfill entrance, C&D units, drivers, government officials, traffic controllers, and weigh stations
  - ❑ Any delays or compromise in biosecurity procedures should be conveyed to the Field Operations Center
  - ❑ Completion of land filling procedures should also be conveyed to the Field Operations Center

Emergency Situations

- ✓ Be prepared for:
  - ❑ Temporary storage
  - ❑ Spills/excess leakage
  - ❑ Vehicular problems
  - ❑ Adverse weather
  - ❑ Terrorist attack

USDA APHIS

Procedures for Off-site Burial and Treatment of AI-Infected Poultry Carcasses

Biosecurity Issues

- ✓ Quarantine zones: USDA APHIS Investigative and Enforcement Services is responsible for controlling quarantine zones, in collaboration with local law enforcement and emergency personnel
- ✓ Disease contamination/spread along road/ highway route
- ✓ Possible terrorist threats
- ✓ Pre and post landfill cleaning/decontamination
  - ❑ Pre-landfill cleaning and decontamination
    - ➢ All carcasses, feces, bedding, etc. must be double-bagged and disinfected for transport to a permitted landfill
    - ➢ Infected materials placed in first bag and sealed
    - ➢ Outside of this bag is disinfected, placed in the second bag, and sealed
    - ➢ Outside of second bag is sprayed with disinfectant
    - ➢ Prior to leaving an infected premise, personnel, equipment, and vehicles will be cleaned and disinfected
    - ➢ Record in log book
  - ❑ Post-landfill cleaning and decontamination
    - ➢ All PPE should be disposed of properly prior to leaving infected premise
    - ➢ All PPE materials should be double-bagged, disinfected, and buried in the disposal pit after all carcasses and other material has been disposed at the landfill
    - ➢ Hand washing for 15-30 seconds afterwards is highly recommended
    - ➢ Make an entry into operating log book

Factors in Determining Landfill Choice

- ✓ Must meet these criteria to obtain permit
  - ❑ Presence of aquifers
  - ❑ Potential for flooding
  - ❑ Engineered Containment
  - ❑ Leachate management
  - ❑ Gas management regimes
  - ❑ Pre-requisite licensing considerations
  - ❑ Landfill operator perceptions of AI

Sizes of Landfills

- ✓ Small landfill
  - ❑ Less than 500,000 yd^3
  - ❑ Can handle 864 tons/day
  - ❑ Pro: if have smaller number of birds, can use local smaller landfills
  - ❑ Con: disposal at small, local landfills are more logistically challenging
- ✓ Large landfill
  - ❑ Larger than 500,000 yd^3
  - ❑ Can handle 200,000 tons/day
  - ❑ Pro: mega-landfills are more professionally managed and tend to be easier to manage
  - ❑ Con: often located at a greater distance from farms than smaller landfills; therefore, they present a greater biosecurity risk due to their distance from the outbreak

Location of Landfill

- ✓ Landfills (and rendering facilities) should be within a 10 mile radius of the outbreak
- ✓ Landfill facilities can be searched according to state and/or EPA region and by type at: http://www2.ergweb.com/bdrtool/disposalspec.asp?scen=no

Landfill Procedures

- ✓ A gateman should be posted at the entrance of the landfill to control and monitor vehicle access
- ✓ A traffic controller should be posted to prevent truck congestion or build-up on the roadways
- ✓ All vehicles should go through the weighbridge and weights should be recorded
- ✓ Deposit the carcasses in the trench
- ✓ All animal carcasses should be ruptured before burial or placement in a landfill; pre-puncture of the animal carcasses before arrival at the site ensures stable placement of carcasses within the landfill
- ✓ Backfill the trench with previously dug out material
- ✓ After depositing the carcasses at the landfill, vehicles should go to the designated decontamination area (located near the landfill exit) where C&D crews will thoroughly disinfect the vehicle before it is allowed to exist the landfill
- ✓ Workers should also implement C&D procedures

PPE Materials

- ✓ Biosecurity packs
- ✓ Disposable nitrile or vinyl gloves/work gloves/ heavy-duty rubber gloves
- ✓ Disposable coveralls (Tyvek suits)
- ✓ Disposable overboots/shoe covers
- ✓ Safety goggles
- ✓ Head covers (hair nets/hard hats)
- ✓ Dusk masks
- ✓ ChemTape or duct tape
- ✓ Disposable particulate respirators (N95 respirators)
- ✓ Waterless hand cleanser
- ✓ First aid kit